

THE JULESBURG HORIZON.

American Bittern.	Western Meadowlark.
Western Sandpiper.	Western Vesper Sparrow.
Solitary Sandpiper.	Western Grasshopper Sparrow.
Bartramian Sandpiper.	Western Lark Sparrow.
Spotted Sandpiper.	Clay-colored Sparrow.
Killdeer.	Lark Bunting.
Belted Piping Plover.	Purple Martin.
Mourning Dove.	Barn Swallow.
Marsh Hawk.	Tree Swallow.
Swainson's Hawk.	Yellow Warbler.
Burrowing Owl.	Western Yellow-throat.
Kingbird.	Yellow-breasted Chat.
Desert Horned Lark.	Brown Thrasher.
Cowbird.	Short-billed Marsh Wren.
Red-winged Blackbird.	

W. L. DAWSON, *Ahtanum, Wash.*

NOTES ON THE COMMON TERN.

STERNA HIRUNDO.

It has been my privilege to spend six weeks in the laboratories of the U. S. Fish Commission at Wood's Hole, Mass., this summer. A pressure of work on invertebrates has not given much time for birds, but some opportunities did come to study the terns.

The Common Tern is abundant at Wood's Hole and it would hardly be possible to look out over the water in any direction on a summer day without seeing at least one and more likely a half dozen or more of these beautiful birds wheeling and circling here and there, every few minutes dropping like lead head first into the water in a seemingly tireless search for something edible. They are a never failing source of delight to a bird lover.

Among the few colonies of terns on the Atlantic coast that still survive the ravages of the millinery trade are two near Wood's Hole. A large one is at Perkin's Island and a smaller one at Wocpecket Islands.

It was my good fortune on July 20th to accompany Mr. Frank M. Chapman on a trip to Penikese Island, not with guns and egg cases but carrying cameras, tripods and plate holders. A two hour ride on the

Fish Commission steam-launch *Merganser* brought us to the island, and we had the grand sight of thousands of graceful terns swarming over a rather small island. Their shrill cries made a perfect bedlum, and occasionally but not often the deeper squawk of a Roseate Tern (*Sterna dougalii*) was heard. On a low flat, uncovered at low tide, were seen hundreds of Common Terns with a number of young first plumage birds, and, out in shallow water, groups of a score or more could be seen splashing and flapping their wings in very evident enjoyment.

A short walk past the ruins of the old Agassiz laboratories brought us to the nests which were scattered over several acres of ground and were often not more than a yard apart. Eggs and young in all stages were very abundant, but we were sorry to note the large percentage of broken eggs and dead nestlings. In spite of the attempts of the owners of the island to protect the terns, there has been some shooting, and it is reported that fishermen from Cuttyhunk carry off a good many eggs for table use. Some sheep were wandering over the nesting ground, nibbling grass, and they may sometimes trample on the eggs and very young birds, though their presence did not seem to occasion alarm, and we saw a couple of terns perched for several minutes on the backs of sheep and neither sheep nor terns seemed to regard the situation as novel. We were informed that a severe storm some days previous had wrought great havoc in the colony.

We spent several delightful hours studying the terns, and were loth to leave the island when the pilot informed us that we must start back as a wind was rising and it was getting late.

Our presence was naturally the cause of great alarm among the parent terns and they swarmed overhead in great distress. Some of the more anxious would swoop past within a few feet of our heads, scolding fiercely. When we retired some distance, things became more quiet and one by one the birds resumed their nests. The pretty sight of these beautiful birds sprinkled over the short grass for rods and rods was something long to be remembered.

Mr. Chapman took a number of pictures and they doubtless will appear in *Bird-Love* or in the beautiful series of lantern slides which Mr. Chapman uses in his charming lectures on birds.

The downy young leave the nest when disturbed, but are not able to go far for a few days, and they never become active on foot like young Sandpipers. When a little older, the young terns may be found squatting on the ground, or among rocks if on the beach, with the head hidden in

fancied security. Once fully convinced that he is seen he waddles off and never stops until out of sight.

I brought back with me a young *hirundo* almost ready to fly. It very soon learned to take fish from my hand, and always manipulated them so that they were swallowed head end first. A four inch cunner was swallowed whole. Morsels too large to be handled entire were soon dropped. When exceptionally large pieces of fish were swallowed, some very interesting muscular movements took place. A telescope motion of the neck and body was accompanied by a spasmodic movement like that of shivering, for a few seconds. The bird would then "huddle up" and ruffle up its feathers several times.

When in an open place, the bird would frequently raise its wings above its back in the motion of flight and in a couple of days could rise several inches from the ground in this way.

Unfortunately, my pet grew very noisy in the course of a few days and I had to keep him out doors. The following morning he disappeared, and I know not how or when he went. An interesting study of the development of the color patterns of the first plumage was thereby interrupted, but a few facts had been noted. The general coloration of the upper parts, as seen from above, consisted of mottled grays and browns. The primaries, however, have the adult coloring of light bluish gray. As the bird is seen crouching on the ground the primaries are not conspicuous, being folded against the sides of the body, and the upper, probably primitive coloring, is far less conspicuous than the sharply contrasting black head and ash gray back of the adult. The eggs and downy young are admirable illustrations of the principles of protective coloration. The downy nestling with light brownish coloration above, very easily escapes notice even when in the nest, so long as he lies on his breast. The dead nestlings, however, when they lie on their backs, by reason of their light ventral coloration are quite conspicuous against the darker ground. Even the bill and feet show protective coloration as they are a plain brownish and lack the bright red of the adult.

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SUMMER BIRD STUDY.

If indications count for anything, the summer days, with their dense foliage, swarms of mosquitoes, and debilitating weather, are days of almost total inactivity with the average bird student. We are only too